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Celebration of Max Fowler's Birthday

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Abstract— At the MG-XV conference in Portugal 2016, the International Steering Committee made the decision to hold the MG-XVI conference in Japan in 2018 to include a celebration of the 100th birthday of Max Fowler. Max gave the first paper of the first Megagauss conference in 1965, and became a central figure when the conference became a recurring series of meetings in 1979. Max attended every conference until he passed away in 2006, and his wife, Janet, also became a conference essential. This paper recounts the talk given from the American perspective during the celebration, and a paper by Gennady Shvetsov recounts the celebration from the Russian perspective.

Keywords—Max Fowler, Megagauss

I. INTRODUCTION

Max was a cornerstone of the Megagauss Community. He came to Los Alamos Scientific Laboratory (now Los Alamos National Laboratory) permanently in 1957, after a few years of part time work there, and was publishing papers of interest by 1960. His paper entitled “The Los Alamos Flux Compression Program From Its Origin” was the first paper given at the first meeting of what we now recognize as the Megagauss conference series. There were others who also played major roles in the establishment of the conferences, and one should surely mention Fritz Herlach and Heinz Knoepfel, editors of the first conference proceedings, in the same vein. Likewise, the efforts of Peter Turchi in organizing the Megagauss II conference must be noted as an essential piece of the Megagauss community foundation. As time went on, however, Max remained a central figure in the community because of his reputation and seniority, and in some ways, the community became Max's family. Max, and his wife Janet attended every Megagauss conference until Max's death in 2006, and at times a special event, such as Max and Janet's anniversary during the MG-IX conference in 2004, would be celebrated. At this Megagauss XVI conference, we held a special session to celebrate Max in the year of his 100th birthday. In this paper we recount some of what was said at the celebration.

II. MAX AT LOS ALAMOS

Just as Max was part of a Megagauss “family,” his colleagues at Los Alamos were also very much like family. The team of Fowler, Caird, Garn, and Thompson, who performed so much of the pioneering work at Los Alamos, was very dear to Max. Max never pursued management positions, preferring to remain involved in technical work. As such, Max was always head of the team, regardless of who was really boss. This author feels very privileged to have known all the members of that original team, and then to have been part of Max's team. When you were part of Max's team, you always knew that, in the current vernacular, Max “had your back.” If there seemed to be an attempt, for instance, by another organization to take over your work, Max would react like a mother bear, and protect us with great ferocity.

III. MAX IN THE WORLD COMMUNITY

The Megagauss “family” consisted of many world leaders in the field. In our celebration, we noted some of these. For instance, among Max's papers was a carbon copy of a letter Max wrote in his first attempt to contact Academician A. D. Sakharov in 1966. “Dear Dr. Sakharov,” it read, “I am much interested in your recent article, “Magnetic Cumulation,” which appeared in Doklady Akademii Nauk SSSR Vol. 165, No. 1, November 1965. I would also like to congratulate you for achieving the very high magnetic field whose record appears on Figure 1.” Additionally in the celebration, this author told the story of the account related to him by Vladimir Chernenchev telling of the attempt made by Chernenchev and Alexander Pavlovskii to attend the first Megagauss conference. Unfortunately the end of the story is that on the day the two would have left for Frascati, they were told that they would not be allowed to go, and others went in their place. So Max and these two highly prominent scientists did not meet until MG-III in 1983. In 1992, after the MG-VI meeting in Albuquerque, Pavlovskii and Chernenchev came to Los Alamos and signed documents initiating a collaboration between their two labs. Max was very proud of the role he played in the growth of this collaboration, and a great deal of work was done which has been reported extensively in Megagauss conferences and other venues. The final anecdote

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from the celebration notes the beginning of the association with Max and Gennady Shvetsov. Shvetsov attended the MG-II meeting representing all the Russian papers that would be given there. Gennady had the papers with him, and suggested that they did not have to be given at the conference, but could be published in the proceedings. Max's response was that no papers would be published that were not presented at the conference, and so Shvetsov prepared all the presentations by hand on blank view foils and presented every one of them. Gennady Shvetsov has a paper similar to this one about his part of the Max Fowler 100th birthday celebration, but the enormous contribution made by Shvetsov to assure that all the Russian papers were published in that conference is noted here, because Shvetsov may not. That was also the beginning of a friendship that lasted throughout Max's life.

IV. MAX THE MENTOR

Another point made in our celebration was the large number of scientists whose careers were launched by their association with Max Fowler. The view graph used in the celebration shows the cover of Max's "An Introduction to Explosive Magnetic Flux Compression Generators, LA-5890-MS" and notes that Megagauss proceedings would be much thinner without those of us who Max brought into the field. He certainly left behind a legacy of second generation researchers, a small number of whom are this author, Bruce Freeman, Hank Oona, Doug Tasker, Peter Turchi, Maurice Sheppard, John Vorthman, Bob Reinovsky, Irv Lindemuth, and Jim Degnan. Max also worked with many other labs around the United States, and there are many names that could be added to the list from a number of other laboratories.

V. CONCLUSIONS

In the celebration, we made note of Max having many accomplishments in the high magnetic field and flux compression community, but in addition being a proud member of a world-wide family of researchers. Max's many personal relations were of utmost importance to him and this was a large part of what set him apart from others. We named more of those people than we have space to mention here, and realized at the same time that many were also left out. So as we closed the celebration, we paused to remember the host of those who have gone before us and paved the way for where we are now and where our future may go. We thought of Max, the people we had thought to mention, and for many of us, those who had not been mentioned. Then we drank a toast to them in solemn, but fond, remembrance.

REFERENCES

- [1] C. M. Fowler, R. S. Caird, and W. B. Garn, "An Introduction to Explosive Magnetic Flux Compression," Los Alamos report series, LA-5890-MS, 1975.



Figure 1. From left to right, Vladimir Chernechev, Max Fowler, and Alexander Pavlovskii on the occasion of the signing of an agreement between Los Alamos and VNIIEF to have a collaboration in the field of Magnetic Flux Compression work.